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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: WANG et al.  
S/N: To be assigned  
Filed: Contemporaneous Herewith  
Entitled: Improved Acid Copper Electroplating Solutions

Group No.: To be assigned  
Examiner: To be assigned  
Atty. Dkt.: 99A209-DIV

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT


Dear Sir:

Transmitted herewith is an Information Disclosure Statement ("IDS") in the above-referenced Application, together with Forms PTO/SB/08A and PTO/SB/08B which list all references cited.

This IDS is being mailed within three (3) months of filing of the above-captioned Application, if it is a National Application, or within three (3) months of entering, as set forth in 37 C.F.R. § 1.491, the national stage of the above-captioned Application, if the above-captioned Application is an International Application. Therefore, consideration of the IDS by the Patent and Trademark Office, without the payment of any additional fee, is believed to be due under 37 C.F.R. § 1.97(b). However, the Commissioner is hereby authorized to charge Deposit Account No. 02-2865 if any fee under 37 C.F.R. 1.17 is deemed necessary for the accompanying references to be considered by the Patent and Trademark Office.

Respectfully submitted,

Date: April 14, 2004  
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**INFORMATION DISCLOSURE  
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Application Number	
Filing Date	
First Named Inventor	WANG et al.
Art Unit	
Examiner Name	
Attorney Docket Number	99A209-DIV

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**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	1	US- 3 267 010	08-16-1966	Creutz et al.	
	2	US- 3 328 273	06-27-1967	Creutz et al.	
	3	US- 3 615 736	10-26-1971	Stone	
	4	US- 3 715 289	02-06-1973	Cope, Jr.	
	5	US- 4 004 956	01-25-1977	Brindisi, Jr.	
	6	US- 4 038 161	07-26-1977	Eckles et al.	
	7	US- 4 134 803	01-16-1979	Eckles et al.	
	8	US- 4 304 646	12-08-1981	Courduvelis	
	9	US- 4 324 623	04-13-1982	Schaer	
	10	US- 4 376 685	03-15-1983	Watson	
	11	US- 4 430 173	02-07-1984	Boudot et al.	
	12	US- 4 490 220	12-25-1984	Houman	
	13	US- 4 555 315	11-26-1985	Barbieri et al.	
	14	US- 4 808 481	02-28-1989	Luxon	
	15	US- 4 717 439	01-05-1988	Hajdu et al.	
	16	US- 4 786 746	11-22-1988	Miljkovic	
	17	US- 4 897 165	01-30-1990	Bernards et al.	
	18	US- 4 948 474	08-14-1990	Miljkovic	
	19	US- 4 954 226	09-04-1990	Mahmoud	

**FOREIGN PATENT DOCUMENTS**

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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

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	20	US- 5 051 154	09-24-1991	Bernards et al.	
	21	US- 5 147 905	09-15-1992	Dubois et al.	
	22	US- 5 151 170	09-29-1992	Montgomery et al.	
	23	US- 5 174 886	12-29-1992	King et al.	
	24	US- 5 215 645	06-01-1993	DiFranco et al.	
	25	US- 5 266 212	11-30-1993	Szotek	
	26	US- 5 328 589	07-12-1994	Martin	
	27	US- 5 403 465	04-04-1995	Apperson et al.	
	28	US- 5 433 840	07-18-1995	Dahms et al.	
	29	US- 5 630 950	05-20-1997	Cangelosi	
	30	US- 5 730 854	03-24-1998	Martin	
	31	US- 5 733 429	03-31-1998	Martin et al.	
	32	US- 5 750 018	05-12-1998	Brasch	
	33	US- 5 849 171	12-15-1998	Dahms et al.	
	34	US- 5 863 410	01-26-1999	Yates et al.	
	35	US- 6 261 433	07-17-2001	Landau	
		US-			
		US-			
		US-			

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	36	"Copper Electroplating for Advanced Interconnect Technology," R.D. Mikkola, Q.-T. Jiang & B. Carpenter, PLATING & SURFACE FINISHING, March 2000, pp. 81-85	
	37	"Leveling of 200 nm Features by Organic Additives," James J. Kelly and Alan C. West, ELECTROCHEMICAL AND SOLID-STATE LETTERS, 2 (11) (1999), LETTERS ONLINE, Kell1-Kell3	
	38	"Polyethylene Glycol in Copper Electrodeposition onto a Rotating Disk Electrode," M.R.H. Hill and G.T. Rogers, J. ELECTROANAL. CHEM., 86 (1978) 179-188	
	39	"Studies of Copper Deposition for High Aspect Ratio Printed Circuit Boards," M. Goodenough and K.J. Whitlaw, M. Goodenough and K.J. Whitlaw Trans. Inst. 1989, 67, 57,	
		pp. 57-62	
	40	"Effects of Polyethylene Glycol on the Electrochemical Characteristics of Copper Cathodes in an Acid Copper Medium," J.D. Reid and A.P. David, PLATING AND SURFACE FINISHING,	
		January 87, pp. 66-70	
	41	"Damascene Copper Electroplating for Chip Interconnections," by P.C. Andricacos, C. Uzoh, J.O. Dukovic, J. Horkans, H. Deligianni, IBM J. RES. DEVELOP., Vol. 42, No. 5,	
		September 1998	
	42	"Additive Components: Overall Adsorption Behavior," presented by J. Reid, Novellus Systems, UC Berkeley Extension, June 8-10, 1998	

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	43	European Search Report for Application No. 00305941.7 dated November 5, 2003	

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